

**OBSERVATION 1**

1. Ramp from Division 5 to RTU-RCDC has a total rise of approximately 24 inches. It does not have a handrail on either side of the ramp. The slope ranges from 2.1 to 2.8% which equates to ratios of 1:48 to 1:36. It is a continuous ramp with no intermediate landings.

## **OBSERVATION 2**

2. Ramp #2 has a total rise of approximately 48 inches. The horizontal run is split into two ramp runs with an intermediary landing. The rise of each sloped run of the ramp was approximately 24-inches. The landing was approximately equidistant from each end of the two sloped runs. The landing is slightly short of the minimum required landing length of 60-inches. It is approximately 38 inches in length. The landing has a minimal slope of 1.1% or a ratio of 1:91.

This ramp does have handrails on both sides of the Ramp, mounted on each vertical wall

## **OBSERVATION 3**

3. Ramp #3 is a temporary metal ramp used to move personnel from one level to another at the location of a fixed stair. It is identified with a manufacturing sticker as being a ramp manufactured or supplied by "*B&P Manufacturing*" in Cadillac, Michigan. The ramp is identified on that manufacturer's web site as a "walk ramp."

The portable ramp was 15 feet, 2-inches and spanned from the top landing of the 6-step stair to a point approximately 10 feet beyond the last riser at the bottom of that stair. Raised edges on the ramp were 1 -1/2-inches above the ramp surface and 1-inch in width. The clear width of the ramp between raised edges was 38-inches.

Ramp slope for the major portion of the ramp was approximately 13.7 degrees or 1:7, with top and bottom transition portions of the ramp ranging from 24.7 degrees (1:4) to 31.6 degrees (1:3). The ramp was not permanently fixed but its weight held it in the position it was placed.

Railings were in place for the fixed stair along the wall adjacent to the ramp, and at the center of the stair which was adjacent to the other side of the ramp. These previously existing handrails for the stair were 1-inch by 1-inch steel tubes. They followed the rise and run of the stair and were unrelated to the temporary ramp for use as handrails. As such they ranged from 28 inches above the ramp surface at the top of the ramp, to 8 inches above the ramp surface at the end of fixed stair. There were no handrails provided for the bottom 10 feet of temporary steel ramp.

